

Title (en)

SPLIT VIA STRUCTURES COUPLED TO CONDUCTIVE LINES FOR ADVANCED INTEGRATED CIRCUIT STRUCTURE FABRICATION

Title (de)

MIT LEITERBAHNEN GEKOPPELTE SPLIT-THROUGH-STRUKTUREN ZUR HERSTELLUNG EINER FORTGESCHRITTENEN INTEGRIERTEN SCHALTUNGSSTRUKTUR

Title (fr)

STRUCTURES DE TROU D'INTERCONNEXION FENDUES COUPLÉES À DES LIGNES CONDUCTRICES POUR FABRICATION DE STRUCTURE DE CIRCUIT INTÉGRÉ AVANCÉE

Publication

EP 4345870 A1 20240403 (EN)

Application

EP 23190856 A 20230810

Priority

US 202217956775 A 20220929

Abstract (en)

Embodiments of the disclosure are in the field of integrated circuit structure fabrication. In an example, an integrated circuit structure includes a plurality of conductive lines in a first inter-layer dielectric (ILD) layer, the plurality of conductive lines on a same level and along a same direction. A second ILD layer is over the plurality of conductive lines and over the first ILD layer. A first conductive via is in a first opening in the second ILD layer, the first conductive via in contact with a first one of the plurality of conductive lines, the first conductive via having a straight edge. A second conductive via is in a second opening in the second ILD layer, the second conductive via in contact with a second one of the plurality of conductive lines, the second one of the plurality of conductive lines laterally spaced apart from the first one of the plurality of conductive lines, and the second conductive via having a straight edge, the straight edge of the second conductive via facing the straight edge of the first conductive via.

IPC 8 full level

H01L 21/768 (2006.01); **H01L 23/522** (2006.01); **H01L 23/528** (2006.01); **H01L 23/532** (2006.01)

CPC (source: EP US)

H01L 21/76816 (2013.01 - EP); **H01L 21/76877** (2013.01 - US); **H01L 21/76885** (2013.01 - EP); **H01L 21/76897** (2013.01 - EP); **H01L 23/5226** (2013.01 - EP US); **H01L 23/528** (2013.01 - EP); **H01L 23/5283** (2013.01 - US); **H01L 23/53295** (2013.01 - EP); **H01L 23/53238** (2013.01 - EP)

Citation (search report)

- [X] US 2021384072 A1 20211209 - JIN JISONG [CN], et al
- [X] US 10020223 B1 20180710 - ANDERSON BRENT A [US], et al
- [A] US 2020126842 A1 20200423 - TOPALOGLU RASIT O [US], et al
- [A] US 10134580 B1 20181120 - LICAUSI NICHOLAS V [US], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

EP 4345870 A1 20240403; US 2024113019 A1 20240404

DOCDB simple family (application)

EP 23190856 A 20230810; US 202217956775 A 20220929